

The Africa Biodiversity Collaborative Group members survey on Climate Change Adaptation

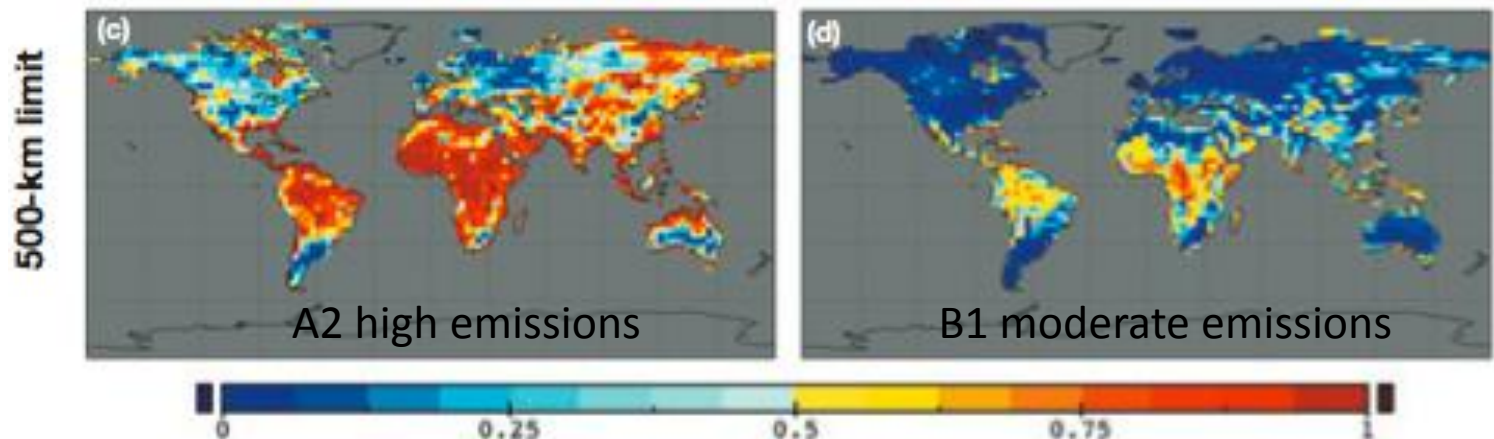


Presented by Anton Seimon, Wildlife Conservation Society
on behalf of the ABCG members



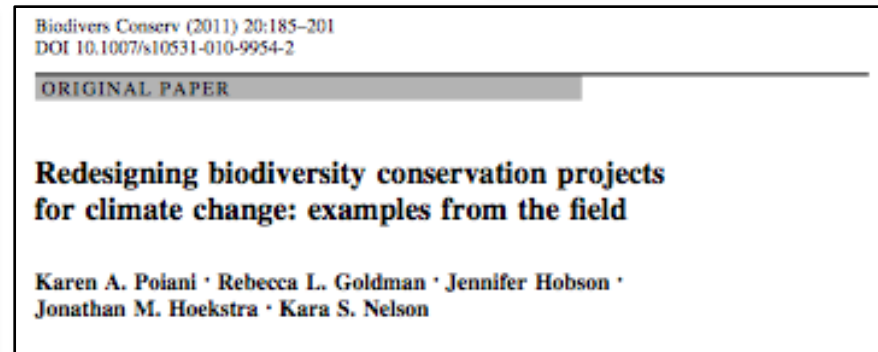
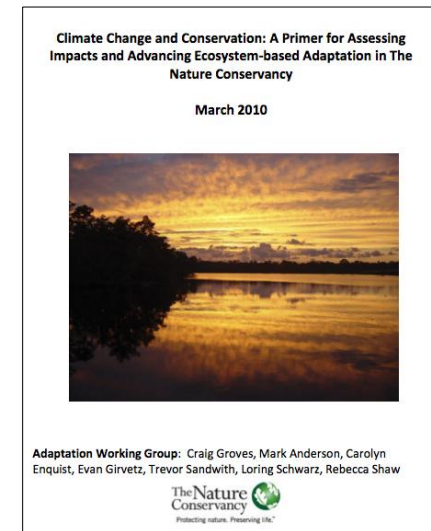
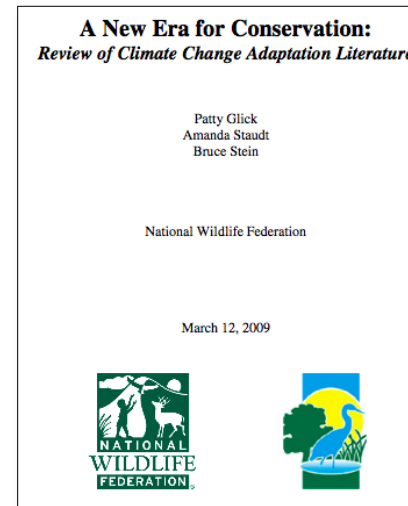
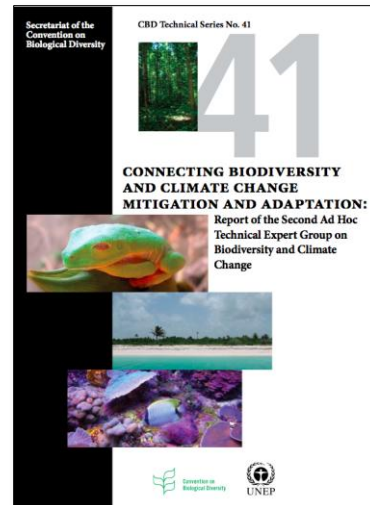
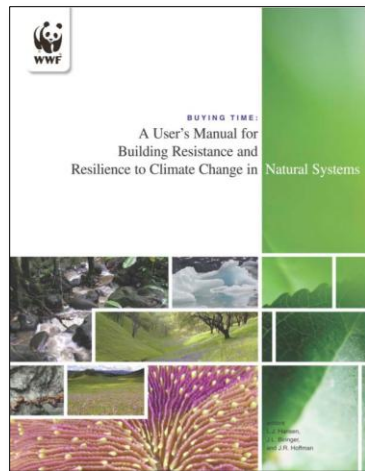
Climate change and Africa

- Most attention and funding on adaptation concerns social and economic implications
- Biodiversity and ecosystems underpin these concerns, and will be profoundly affected as climatic conditions increasingly shift away from recent baseline conditions
- Modeling study suggests local climates will be replaced by others not currently found in region



Reviews on adaptation for biodiversity conservation

No surveys to date offer a focus on Africa



Why this report?

- Until very recently, conservation planning in Africa has been blind to the threats posed by climate change
- Need for Africa-focused assessment of adaptation initiatives in conservation
- All ABCG members now active with adaptation initiatives with broad range of themes; can share experiences and lessons learned based on several years of work
- Inform stakeholders and donors about findings based on collective experience
- Identify opportunities for further collaborative work

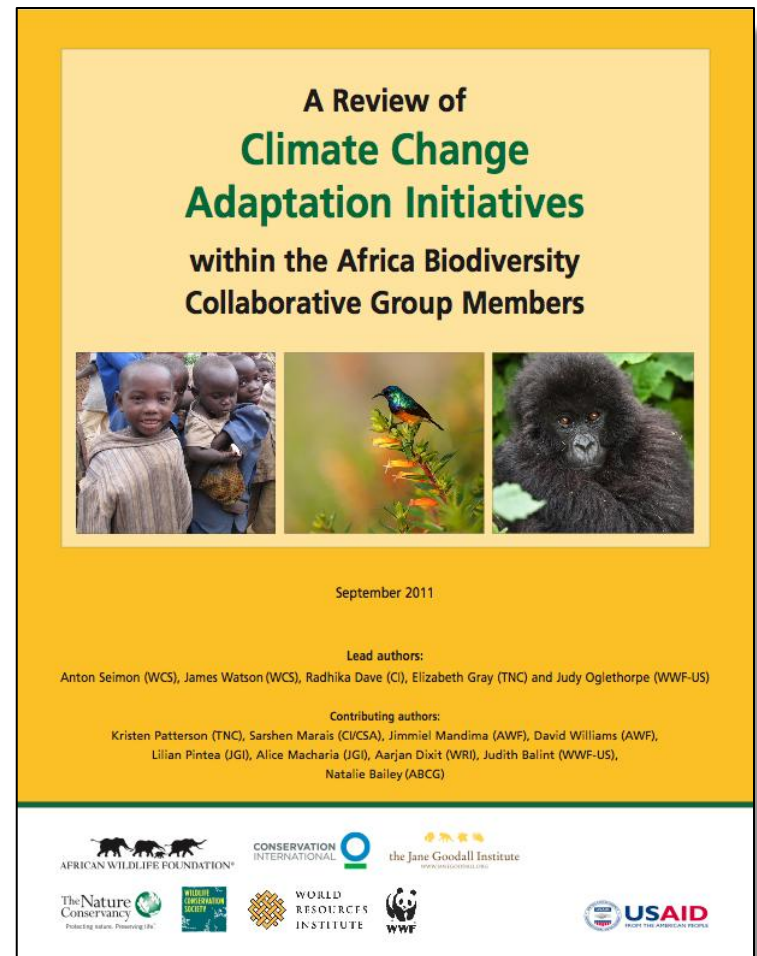
Methods

Information gathered between Jan-Aug 2011 through a process designed to be iterative and adaptive

- Interviews with ABCG leads on climate change adaption
- Written response to a questionnaire
- Preliminary report sent to ABCG members for comment
- Washington DC workshop in July 2011
- Compilation of summary recommendations, second questionnaire circulated
- Final report

Product: ABCG report on climate change adaptation

- First survey of conservation NGO work on adaptation in Africa
- Introduces diverse set of multi-year projects on adaptation
- Brings forth lessons-learned from direct field experience
- Offers consensus recommendations for ABCG members, other conservation interests and donors
- Identifies opportunities for outreach activities and further collaborative work



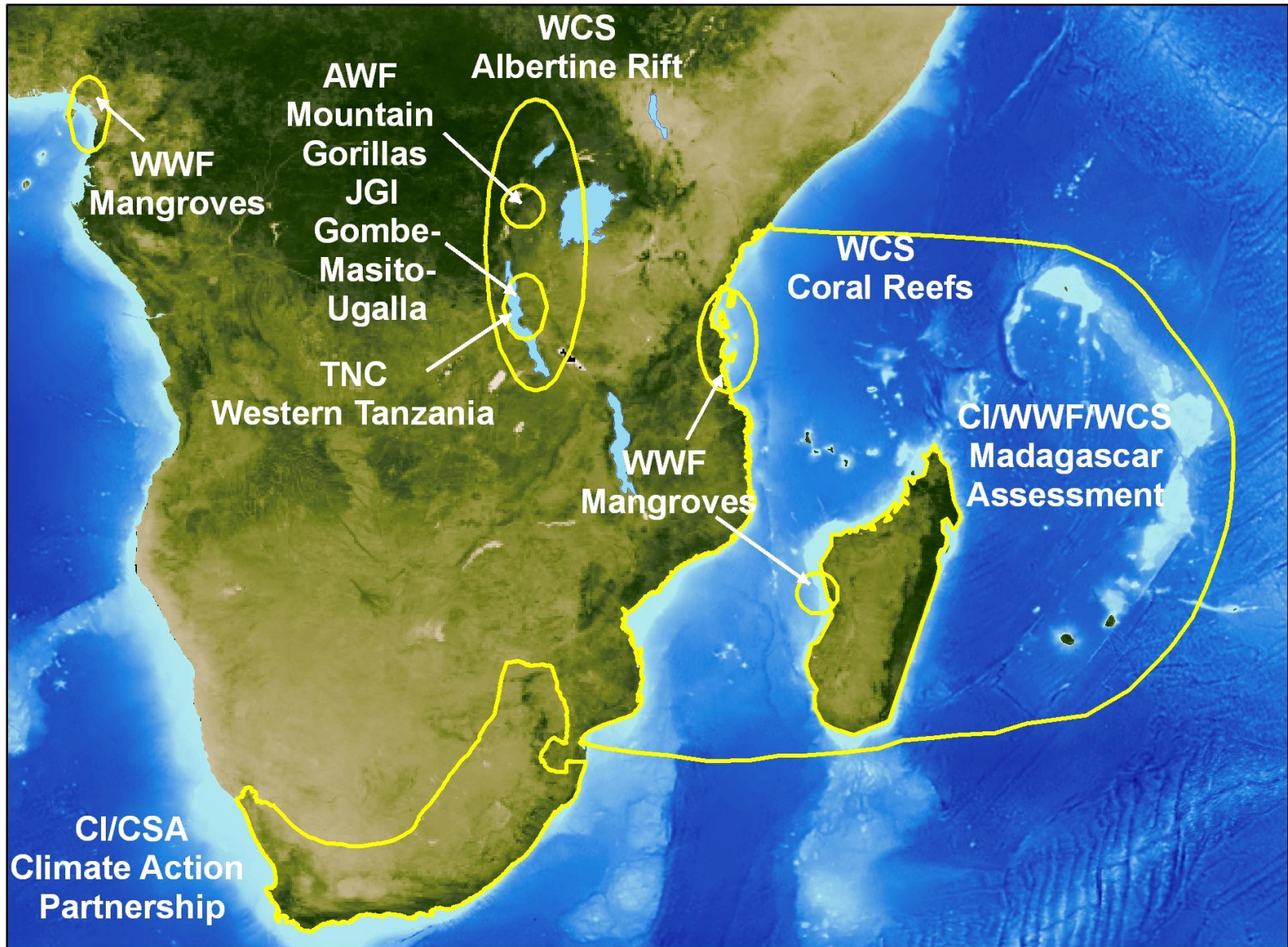
Projects evaluated

10 projects were selected from the ABCG member portfolio on adaptation

- AWF: **Mountain gorilla vulnerability assessment** in Rwanda, Uganda and Democratic Republic of Congo.
- CI: **Vulnerability assessment and feasibility test** of implementing recommended adaptation measures in Madagascar.
- CI/Conservation South Africa (CSA) **Climate Action Partnership** in South Africa.
- JGI: **Gombe-Masito-Ugalla Project** in Tanzania to develop long-term adaptation strategies for on the ground implementation in and around key protected areas.
- TNC: **Western Tanzania Project** to develop Ecosystem-based Adaptation strategies for on the ground implementation across western Tanzania.
- WCS: **Albertine Rift Climate Assessment** in Uganda, Rwanda, Burundi, Tanzania and DR-Congo
- WCS: **Western Indian Ocean Coral Reef Program** in coastal and island nations.
- WRI: **World Resources Report and ARIA Policy Assessment**.
- WWF-US: **Mangrove Resilience to Climate Change project** in Tanzania and Cameroon;
- WWF-US with WWF-Network: **Madagascar vulnerability assessments and testing of adaptation measures**.

Projects all outlined in detail in Appendix 5 of the report.

Geographic coverage of projects evaluated



Results of comparative analysis

Topics:

- Project development in adaptation framework
- Conservation themes
- Spatial scales
- Donor support
- Use of models
- Monitoring & evaluation
- Policy

Spatial scales of project			Spatial scales						
			Local Protected Area	Regional	Multi-national	Major Biome	Pan-African	Global	
NGO	PROJECT	LOCATION							
AWF	Mountain Gorilla	Rwanda, Uganda, DR Congo	■						
CI	Island-wide vulnerability assessment	Madagascar		■					
	Climate Action Partnership	South Africa	■		■				
JGI	Gombe-Masito-Ugalla	Tanzania	■						
TNC	Western Tanzania	Tanzania	■						
WCS	Albertine Rift	Uganda, Rwanda, Tanzania, Burundi, DR Congo	■		■				
	West Indian Ocean coral reef	Kenya, Tanzania, Mozambique, Madagascar	■		■	■			
WRI	World Resources Reports & ARIA survey	Mali, Namibia, Rwanda, S. Africa, Ghana							■
WWF	Mangrove Resilience to Climate Change	Tanzania, Cameroon	■			■			
	Capacity building, vulnerability assessment and adaptation	Madagascar	■						

Individual PAs
PA clusters
National scale

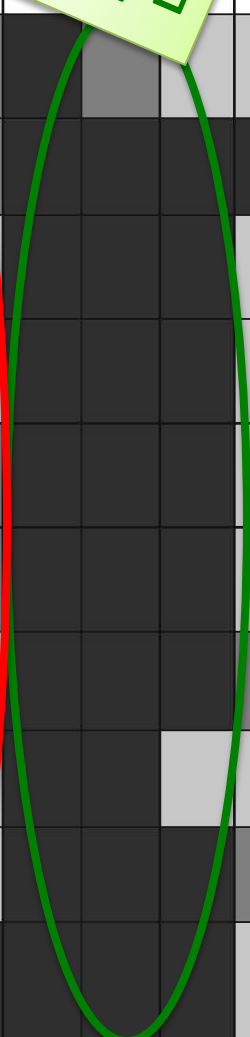
e.g. Table 5.6 showing the spatial scales of ABCG member projects ordered on a continuum from individual protected areas to global scale.

Conservation themes

KEY			THEMATIC AREAS															
<table border="1"> <tr> <td style="background-color: black; width: 20px; height: 20px;"></td> <td>Primary focus</td> </tr> <tr> <td style="background-color: gray; width: 20px; height: 20px;"></td> <td>Secondary focus</td> </tr> <tr> <td style="background-color: lightgray; width: 20px; height: 20px;"></td> <td>Not a focus</td> </tr> </table>				Primary focus		Secondary focus		Not a focus	Species	Disease	Population	Genetics	Evolution	Ecology	Systemic risk	National-level planning	National level policy	International policy
	Primary focus																	
	Secondary focus																	
	Not a focus																	
NGO	PROJECT	LOCATION																
AWF	Mountain Gorilla	Rwanda, Uganda, DR Congo																
CI	Island-wide vulnerability assessment	Madagascar																
	Climate Action Partnership	South Africa																
JGI	Gombe-Masito-Ugalla	Tanzania																
TNC	Western Tanzania	Tanzania																
WCS	Albertine Rift	Uganda, Rwanda, Tanzania, DR Congo																
	West Indian Ocean coral reefs	Kenya, Tanzania, Mozambique, Madagascar																
WRI	World Resources Reports & ARIA survey	Mali, Namibia, Rwanda, S. Africa, Ghana																
WWF	Mangrove Resilience to Climate Change	Tanzania, Cameroon																
	Capacity building, vulnerability assessment and adaptation	Madagascar																

Disease
Population

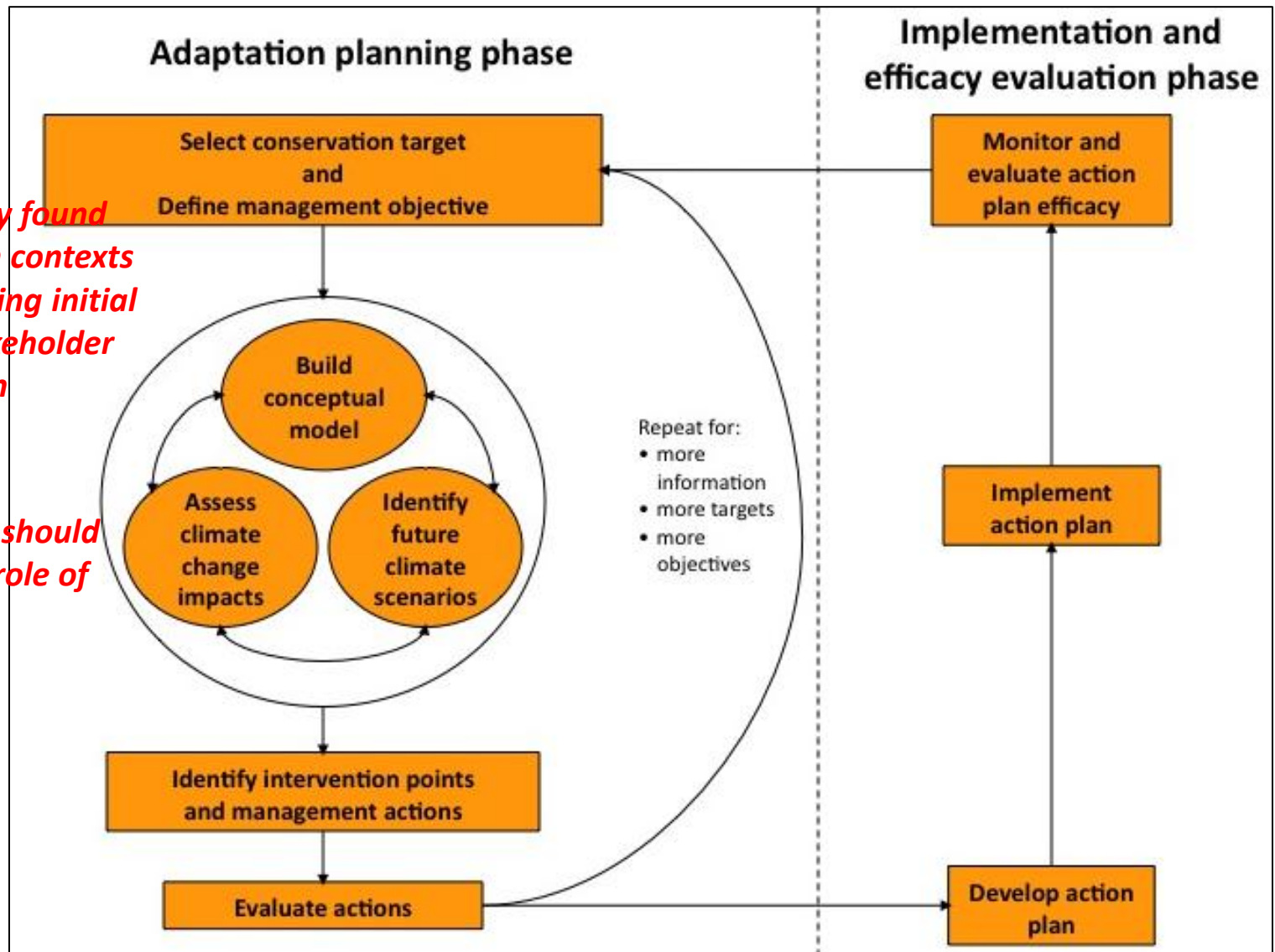
Livelihoods
Ecosystems
Land/seascapes



Adaptation for Conservation Targets (ACT) Framework

ABCG survey found that African contexts require adding initial step on stakeholder consultation

Framework should specify the role of people



ABCG projects assessed in ACT framework

KEY

	Developed or completed
	Partially developed or incomplete
	Not developed or included in objectives

Stakeholder consultations while setting project objectives

Actions taken

NGO	PROJECT	LOCATION	Identify features, ecological processes, measurable management	Build a conceptual model that ecological, social, and economic	Examine how the feature may be affected by plausible climate change scenarios	Identify intervention points and potential actions required to achieve objectives for each feature under each scenario	Evaluate potential actions for feasibility and tradeoffs	Implement actions, monitor the efficacy of actions and progress towards objectives, and reevaluate to address system
AWF	Mountain Gorilla	Rwanda, Uganda, DR Congo						
CI	Island-wide Vulnerability Assessment	Madagascar						
	Climate Action Partnership	South Africa						
JGI	Gombe-Masito-Ugalla	Tanzania						
TNC	Western Tanzania	Tanzania						
WCS	Albertine Rift	Uganda, Rwanda, Tanzania, DR Congo, Burundi						
	West Indian Ocean Coral Reef	Kenya, Tanzania, Mozambique, Madagascar						
WRI	World Resources Reports & ARIA survey	Mali, Namibia, Rwanda, S. Africa, Ghana	N/A	N/A	N/A	N/A	N/A	N/A
WWF	Mangrove Resilience to Climate Change	Tanzania, Cameroon						
	Capacity building, vulnerability assessment and adaptation	Madagascar						



Project design and execution

- Feedback from the field: report provides summary of key lessons learned as reported by field programs at Washington workshop
- Conservation and development community increasingly apply ecosystem-based or people-based approaches to climate change adaptation:
 - EbA – Ecosystem-based Adaptation aims to use biodiversity and ecosystem services as part of an overall adaptation strategy to help people adapt to the adverse effects of climate change
 - CBA – Community Based Adaptation targets the most vulnerable populations and focuses on activities with the greatest direct impact
- EbA is becoming central to adaptation programs of several major NGOs and donors

Recommendations: Project Design and Execution

- **Utilize an adaptation framework to help conceptualize project design, tailored as needed to explicitly include the role of people in project activities when conducting adaptation work in Africa.**
- Incorporate Ecosystem-based Adaptation (EbA) and Community-Based Adaptation (CBA) approaches into existing climate adaptation field projects where applicable, and conduct monitoring of such approaches to adaptively manage and refine them over time.

Recommendations: Project Design and Execution

- Utilize an adaptation framework to help conceptualize project design, tailored as needed to explicitly include the role of people in project activities when conducting adaptation work in Africa.
- **Incorporate Ecosystem-based Adaptation (EbA) and Community-Based Adaptation (CBA) approaches into existing climate adaptation field projects where applicable, and conduct monitoring of such approaches to adaptively manage and refine them over time.**

Data, Analysis and Modeling

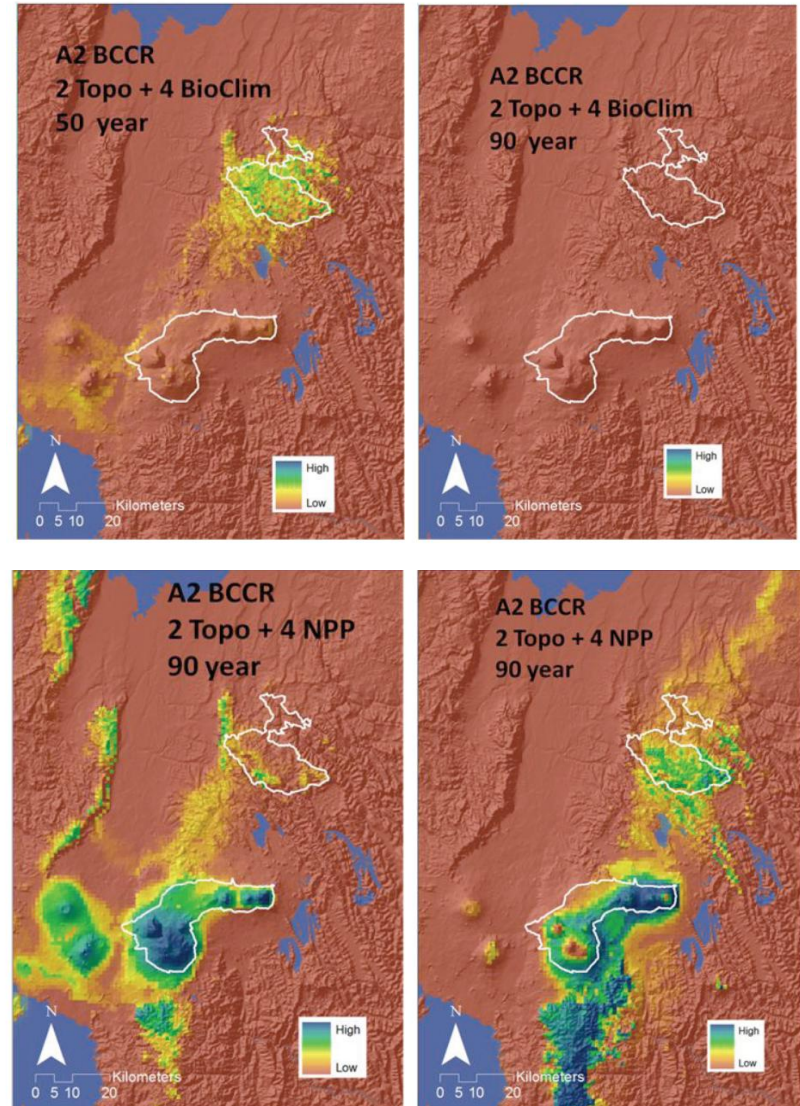
- Observational database:
 - Knowledge of site-specific baseline conditions required to understand present day relationship of species and ecosystems to climate
 - Needed for assessing model representations of current and future conditions

Station map AfricaGSOD 2008 - 2009



Data, Analysis and Modeling

- Imbalance between model limitations and project needs
- How to deal with divergent predictions and set confidence levels for decision-making?



Dissimilarity in model results from mountain gorilla vulnerability study (AWF presentation at Washington workshop)

Recommendation: Data, Analysis & Modeling

- **Support the financing and installation of research-grade weather stations in sites of primary concern for biodiversity conservation, in data-void regions and where monitoring is already ongoing with inadequate systems**

Analytical approaches and models

- ABCG members are using new tools and methods to generate guidance needed for adaptive decision-making
- Examples: ClimaScope & Wallace Initiative (WWF), Albertine Rift and Coral Reef analytical approaches (WCS), Climate Wizard (TNC)
- General dependence on modeling, but results limited by uncertainty in projections and spatial resolution issues

Recommendations: Data, Analysis & Modeling

- **Critically assess model projections for plausibility, utility, and opportunities for improvement by persons with relevant knowledge of the species or ecosystems under consideration.**
- Use scenario building exercises with scientists and stakeholders with relevant experience and local knowledge to consider how outcomes may vary and what actions would be appropriate for different combinations of factors driving environmental responses to climate change.

Recommendations: Data, Analysis & Modeling

- Critically assess model projections for plausibility, utility, and opportunities for improvement by persons with relevant knowledge of the species or ecosystems under consideration.
- **Use scenario building exercises with scientists and stakeholders with relevant experience and local knowledge to consider how outcomes may vary and what actions would be appropriate for different combinations of factors driving environmental responses to climate change.**

Monitoring and evaluation

- Environmental and biological monitoring is fundamental component of most adaptation programs
- Need and opportunity to involve communities in monitoring
- Donor funding generally too short in duration for long-term monitoring needs related to climate change

KEY			Monitoring Activities								
			Climate Monitoring	Vegetation Monitoring	Fauna Monitoring	Impacts on Biodiversity	Impacts on Ecosystem Services	Impacts on Resource-Dependent Livelihoods	Evaluate Effectiveness of Interventions	Capacity Building on Monitoring and Evaluation	Approximate Funding for Monitoring and Evaluation
NGO	Project	Location									
AWF	Mountain Gorilla	Rwanda, Uganda, DR Congo								5%	
CI	Island-wide vulnerability assessment & Feasibility Tests	Madagascar								10%	
	Climate Action Partnership	South Africa								10%	
JGI	Gombe-Masito-Ugalla	Tanzania								13%	
TNC	Western Tanzania	Tanzania								7%	
WCS	Albertine Rift	Uganda, Rwanda, Tanzania, DR Congo, Burundi								50%	
	West Indian Ocean coral reefs	Kenya, Tanzania, Mozambique, Madagascar								40%	
WRI	World Resources Reports & ARIA survey	N/A								100%	
WWF	Mangrove Resilience to Climate Change	Tanzania, Cameroon								50%	
	Capacity building, vulnerability assessment and adaptation	Madagascar								3%	

Table 5.8 in report provides comparison of different monitoring activities utilized by ABCG members in their project work

Recommendations: Project Monitoring & Evaluation

- **Develop guidance recommendations for conservation practitioners on how to integrate monitoring information into adaptive management.**
- Work collaboratively to ensure sustained funding for long-term monitoring beyond the duration of normal funding periods.

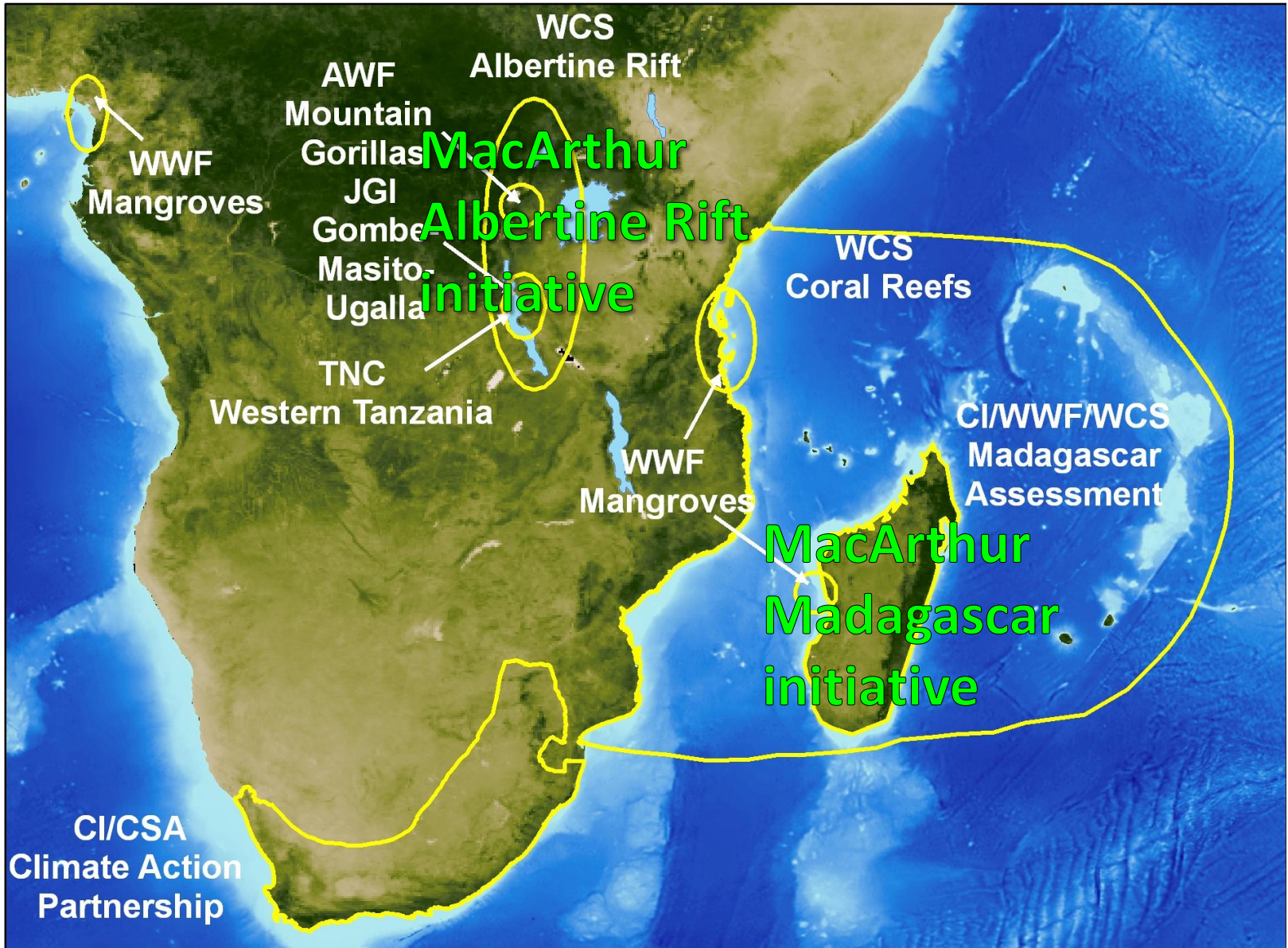
Recommendations: Project Monitoring & Evaluation

- Develop guidance recommendations for conservation practitioners on how to integrate monitoring information into adaptive management.
- **Work collaboratively to ensure sustained funding for long-term monitoring beyond the duration of normal funding periods.**

Funding sources

- Geographic scope of projects funded reflects donor priorities
- Congo rainforest absent from ABCG members portfolio; only receives minor NGO and donor attention on adaptation
- Donor attention has been much more focused on mitigation (REDD/REDD+) than adaptation

			FUNDING SOURCES				
NGO	PROJECT	LOCATION	Major Grant Sources	Granted Sums (US\$)	Period (months)	Institutional Funding Support	Other Sources
AWF	Mountain Gorilla	Rwanda, Uganda, DR Congo	MacArthur Foundation	310,000 shared with IGCP and EcoAdapt	19	Yes	Netherlands – DGIS; USAID through SCAPES
CI	Island-wide vulnerability assessment	Madagascar	(1) MacArthur Foundation (2) MacArthur Foundation	(1) 200,000 (2) 650,000 (with WCS and WWF)	(1) 24 (2) 24		
	Climate Action Partnership	South Africa	Citigroup, Dev. Bank of South Africa, CEPF, Douglas Murray Trust	N.A - shared among several partners	36 (DM Trust funds)		
JGI	Gombe-Masito-Ugalla project	Tanzania	USAID	227,000 sub-award through TNC	24		Private donors
TNC	Western Tanzania	Tanzania	(1) USAID; (2) Govt of Finland through LifeWeb	(1) 227,000 (2) 84,500	(1) 24 (2) 24	Yes	
WCS	Albertine Rift	Uganda, Rwanda, Tanzania, DR Congo, Burundi	MacArthur Foundation	(1) 250,000 (2) 650,000 (3) 150,000	(1) 24 (2) 36 (3) 12	Yes	
	West Indian Ocean coral reefs	Kenya, Tanzania, Mozambique, Madagascar	(1-2) MacArthur Foundation; (3-4) WIDMSA; (5) World Bank	(1) 400,000 (2) 400,000 (3) 150,000 (4) 150,000 (5) 180,000	(1) 36 (2) 36 (3) 24 (4) 24 (5) 15	Yes	
WRI	World Resources Reports & ARIA survey	Mali, Namibia, Rwanda, S. Africa, Ghana	World Res. Report supported by UNEP, UNDP, World Bank	–	–	Yes	SIDA, Irish Aid Netherlands DGIS, Norway Ministry of Foreign Affairs
WWF	Mangrove Resilience to Climate Change	Tanzania, Cameroon	(1) GEF	(1) ~550,000	(1) 36	Yes	
	Capacity building, vulnerability assessment and adaptation	Madagascar	(1) NORAD to WWF-Norway (2-3) MacArthur Foundation; (4) European Commission	(1) ~750,000 (2) 350,000 (3) 210,000 (4) 700,000	(1) 36 (2) 36 (3) 36 (4) 48		

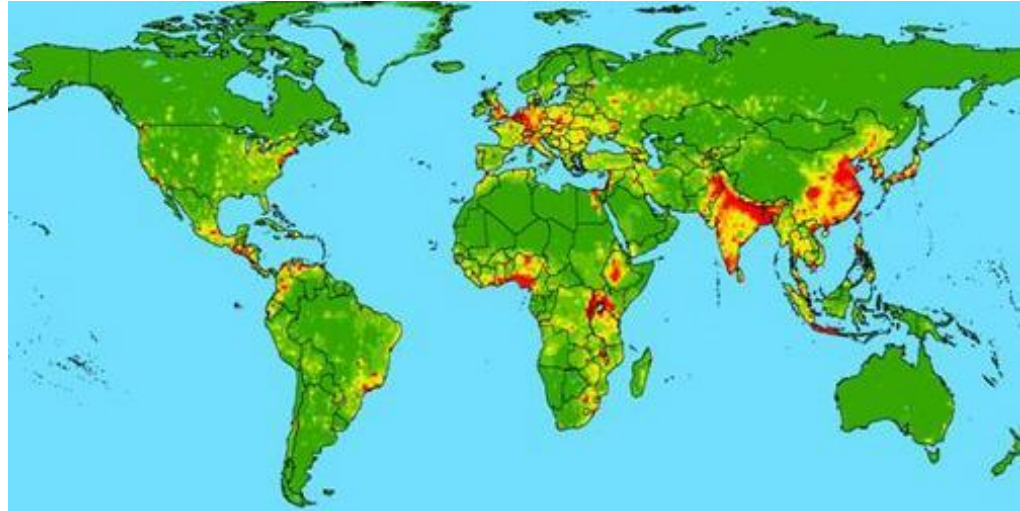


Recommendation: Working with Donors

- Use the findings of this report to inform key funders with programs in Africa of priorities through outreach activities such as workshops.

Recommendations for Broader Interests

- Increase research attention, funding and training around the issue of disease dynamics and epidemiology under climate change in Africa.

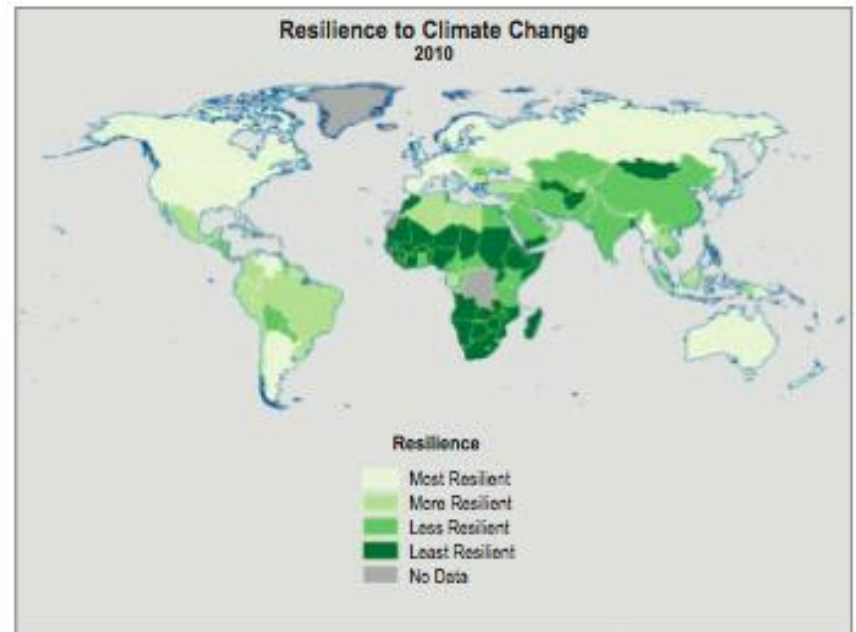
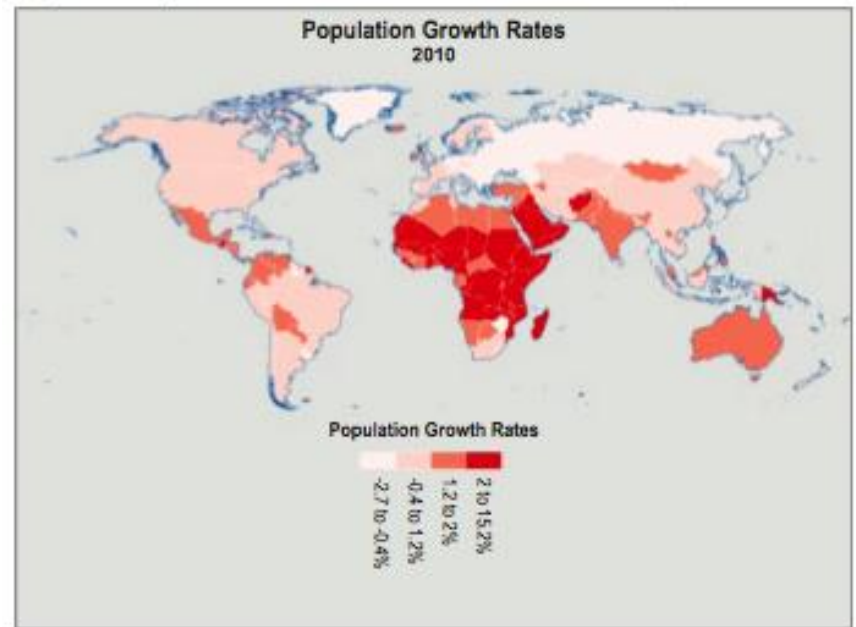


Current global distribution of relative risk of emerging infectious disease events caused by zoonotic pathogens

Source: Dr. Kate Jones, Zoological Society of London

Recommendations for Broader Interests

- Incorporate comprehensive consideration of the implications of population growth and demand for resources into climate change adaptation work in Africa.



Source: United Nations, Department of Economic and Social Affairs, Population Division. 2011

Thank you!



© Tracie Seimon



© Liana Joseph



© Liana Joseph

Acknowledgements

USAID and other donors supporting ABCG project work on adaptation in Africa

July 2011 ABCG Washington workshop participants

Tim Resch

Natalie Bailey